

GUEST EDITORIAL

The eye on neuro-ophthalmology

We need local studies looking into the relationship between ethambutol intake and toxic optic neuropathy. Local literature on the topic is scant; there is no published incidence of ethambutol-related optic neuropathy.

This issue of the PHILIPPINE JOURNAL OF OPHTHALMOLOGY (PJO) is devoted to neuro-ophthalmology, a subspecialty still considered "minor" in terms of research and clinical practice in the Philippines. It features a guest article by Dr. Anthony Arnold of the Jules Stein Eye Institute of the University of California in Los Angeles, a three-time guest speaker in local meetings. In addition, the issue highlights reports on cases rarely seen in a general ophthalmologist's practice, albeit not that rare in neuro-ophthalmic practice. Though nearly all of the cases have received wider attention in foreign literature, they have not been reported locally. A PJO issue devoted to neuro-ophthalmology is one way of updating local ophthalmologists on these unusual and interesting cases that they may occasionally encounter in clinical practice.

Two other issues in local neuro-ophthalmic practice warrant a second look.

Ethambutol-related optic neuropathy: a resurgence?

A recent report by Tamesis and associates¹ suggested an apparent increase in the incidence of ethambutol (EMB)-related optic neuropathy. While no figures currently demonstrate this "resurgence," it is worth discussing local issues in this clinical condition. In the Philippines, the internist and the ophthalmologist often do not work synergistically in the management of patients undergoing quadruple anti-Koch's treatment for pulmonary tuberculosis (PTB). When patients start experiencing visual problems, they seek an ophthalmologist rather than the internist who prescribed the drug.

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The internist is consequently not made aware of the adverse visual effects of the drug regimen, and that optic-nerve toxicity is rare. The ophthalmologist is left with the difficult task of explaining why the patient's vision deteriorated with the anti-Koch's therapy. While the internist was not at fault in prescribing the regimen for PTB, his failure to warn the patient of the potential visual side effects of the drugs can not be ignored. The random survey by Tamesis of 30 physicians (internists, pulmonologists, family physicians) showed that while all 30 respondents were aware of the potential optic-nerve toxicity, not one briefed their patients on the potential visual side effects of the drug or referred them to an ophthalmologist prior to therapy.¹

We need local studies looking into the relationship between ethambutol intake and toxic optic neuropathy. Local literature on the topic is scant;^{1,2} there is no published incidence of EMB-related optic neuropathy.

Citron summarizes the recommendations of the Joint Tuberculosis Committee of the British Thoracic Society for the management of these patients in a 10-point set of guidelines as follows:³

1. Determine pretreatment renal function. EMB should be avoided in patients with impaired renal function.
2. Do not exceed recommended dose or treatment duration.
3. Record any history of eye problem.
4. Record pretreatment visual acuity (VA). Avoid EMB in patients with poor vision who may not notice further reduction in VA.
5. Inform patients that EMB may affect vision. The drug should be discontinued immediately once visual symptoms occur. Even though the risk of this happening is small, advise patients to comply.
6. Record that patient has been informed about the ocular toxicity.
7. Inform the general practitioner that patients have been given these instructions.

8. Refer patients complaining of ocular symptoms during treatment to an ophthalmologist for a detailed eye examination. Discontinue EMB.

9. Routine VA testing during treatment is not recommended (they may not detect early ocular toxicity).

10. Avoid EMB in children too young for objective eye exams and in patients with language or communication problems that would make assessment difficult.

Documenting the local incidence and clinical profile of EMB-related optic neuropathy will eventually allow us to recommend similar guidelines¹ to the Department of Health to be issued not just for ophthalmologists, but more importantly for internists. The Neuro-ophthalmology Club of the Philippines seeks to take the lead in future collaborative studies on this topic.

The Optic Neuritis Treatment Trial (ONTT): A decade hence, still unheeded

It has been more than a decade since the one-year results of the Optic Neuritis Treatment Trial (ONTT), a multicenter randomized clinical trial sponsored by the United States National Eye Institute, were published.⁴ The results of the study became a set of guidelines for clinical practice in the US. The main objectives of the study were to evaluate the efficacy of corticosteroid treatment of acute optic neuritis and to investigate the relationship between optic neuritis and multiple sclerosis. The major conclusions were: treatment with high-dose intravenous corticosteroids followed by oral corticosteroids accelerated visual recovery but did not provide any long-term benefit to vision; treatment with "standard-dose" oral prednisone alone did not improve the visual outcome and was associated with an increased rate of new attacks of optic neuritis.

It is quite clear from this study that oral prednisone alone should be avoided in patients with optic neuritis. However, we still encounter patients with a presumed diagnosis of optic neuritis given oral steroids by ophthalmologists. One may contend that the results of the ONTT might not apply to local setting as the clinical profile of local optic-neuritis patients does not mirror that seen in North America where multiple sclerosis is a commonly associated finding.⁵ A study by Fajardo et al. even suggested that infectious etiologies might be the major culprit in many local optic-neuritis patients.⁶ Nevertheless, the results of the ONTT currently stand as the widely accepted published guidelines for clinical practice. In this age of malpractice suits, there is no stopping a patient from challenging the management based on personal research of available medical literature. True enough, this

author last year encountered a patient (diagnosed with optic neuritis and given oral prednisone by a local neurologist) who pulled out a 10-page printout of the ONTT results obtained via the Internet, and challenged the management of his neurologist by seeking a second opinion for a possible malpractice suit.

A survey in US recently looked into some of the post-ONTT practices of ophthalmologists and neurologists by mailing a questionnaire to a random sample of 987 ophthalmologists and 900 neurologists.⁷ With a 47% response, the study found that nearly all ophthalmologists and neurologists reduced the use of oral prednisone alone in the treatment of optic neuritis—substituting a regimen that included intravenous methylprednisolone (IVMP). A similar survey attempted locally two years ago generated less than 10% response, and was subsequently discontinued.

The Philippine Optic Neuritis Treatment Trial is underway at the St. Luke's Medical Center Institute of Ophthalmology. This study aims to compare the efficacy of IVMP (a 3-day regimen would roughly cost two month's salary for a minimum-wage worker) vs. IV dexamethasone, a less expensive and more affordable regimen in the local setting (a primary reason for the persistence of prescribing oral prednisone might be its minuscule cost compared with IVMP). Pending the results of this study, however, the Neuro-ophthalmology Club of the Philippines encourages local ophthalmologists to be guided by the results of the ONTT.

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